

A method of extracting regions of homogeneous color from a digital picture divides the digital picture into blocks and generates a feature vector for each block as a set of moments of the data for the block. The distance between the feature vector of each block and the feature vectors of the nearest neighboring blocks are determined using either a weighted Euclidean distance metric or a probability mass function-based distance metric. The maximum distance is the gradient value for the block, and the set of gradient values over all the blocks form a color gradient field. The gradient field is digitized and smoothed, and then segmented into regions of similar color characteristics using a watershed algorithm.